5. Click Accept and RADS will calculate the new storm relative velocity and update the image.

Note that the toggle button on the bottom of the Storm Motion pop-up says **Default** at this time. This button toggles between **Default** (NSSL SCIT algorithm calculated vector) and **Entered** (your vector entered manually). You may toggle between the two vectors and the Storm Relative Velocity image will change accordingly.

6. Click on the **Default** button. (It will then say **Entered**.) Note that the yellow vector coordinates displayed on the lower right of the Storm Relative Velocity image have changed to your Entered vector.

7. Close the Storm Motion, Preferences and Velocity pop-up menus when finished by clicking on CLOSE.

Alarm On Alarm On/Alarm Off

The NSSL meteorological algorithms generate information for severe weather alarms, which is used by RADS to generate severe weather alarm windows. This button toggles the NSSL severe weather trend alarms on and off. When "on", trend alarms generated by the severe weather meteorological algorithms are automatically displayed (Figure 2.24) If a trend alarm is generated, the associated data appears in a separate red pop-up window. For more information on NSSL alarms, see Chapter 4.

NSSL alarms appear when the volume scan is changed. These alarms generally point the user to a storm that has changed dramatically between the two past volume scans.

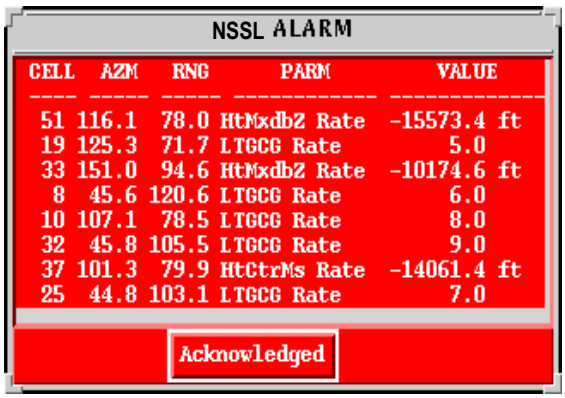

Figure 2.24: Example NSSL Alarm Window

Metric Units English Units/Metric Units

This button toggles between Metric (mks) units and English (knots, nautical miles, kilofeet) for all image windows and products.

Meso Rank Mesocyclone Rank filter

This button allows the user to limit the number of mesocyclone detections displayed on a radar image by specifying a minimum mesocyclone rank.To filter the mesocyclone detections:

1) Click on the Meso Rank button in the Preferences menu. A separate window will appear (Figure 2.25).

2) Within the mesocyclone rank filter window, enter the minimum mesocyclone rank to be displayed inside the black box.

3) Click Accept and CLOSE when finished.

Figure 2.25 Mesorank filter window

Data Range Control and Display

This feature is used in conjunction with the Data Range Window (Figure 2.26). It allows the user to change the range of data values displayed within the image windows.

For example, if you preferred to view reflectivity values from -20 to 60 dBZ rather than the standard 0 to 65 range, you could change the values using the "PREFER" selection "DATA RANGE" to modify and apply the changes.

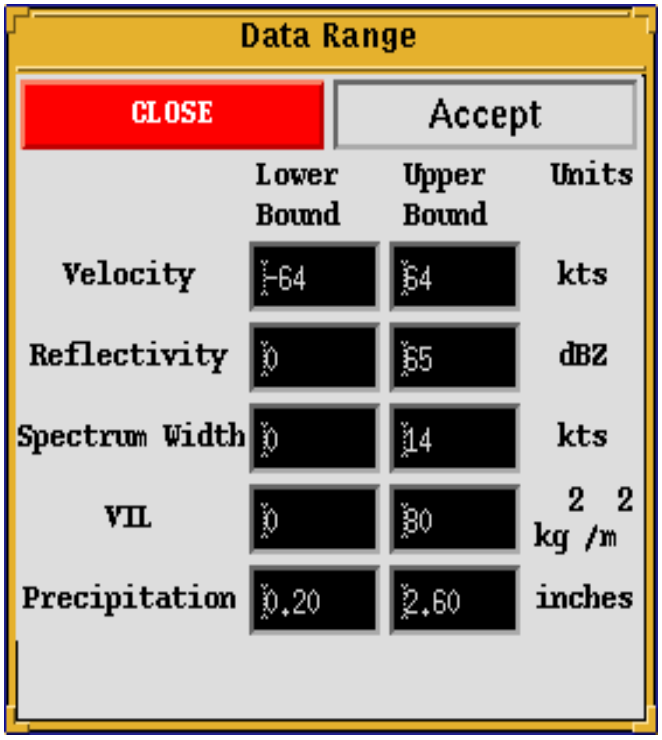

Figure 2.26: Data Range Selection Window

To enter a new data range for a particular type of image:

1. Click the Prefer button on the Control Panel.
2. Click on the Data Range button in the Prefer menu. This opens the Data Range window.
3. Click in the lower or upper bounds box to modify the image product. You can either click in the black box and use the backspace key or use the mouse to drag and highlight the current values then type over them with new values.

4. Either hit Enter on the keyboard or click the Accept button to make the changes active.

5. NOTE: All precipitation Data Range images (1-hour, 3-hour and Storm Total) are affected by the same Data Range values. Both base velocity and storm relative velocity images are affected by the same Data Range values. Both the reflectivity and composite reflectivity are affected by the same Data Range values. To modify the defaults for the Data Range values, see Appendix B.

6. Close the Data Range window by clicking on the CLOSE button at the top of the window.

7. Close the PREFER Menu by clicking on the CLOSE button at the top of the menu.

Current Volume Scan Displayed

The **current volume scan** is the volume scan currently being displayed or manipulated. Only one volume scan and its associated sweeps may be examined at a time. In the example volume scan entry box, the current volume scan is volume 280, and the time of the scan is 21:23 in Universal Time. RADS defines and manages data by volume scans and sweep numbers. Algorithm products, images, graphics, etc., are updated with each new volume scan.

There are three ways to change the current volume scan:

1. Change the current volume scan by clicking once on the volume scan entry square , and then typing in a new number. If you press ↵, or the Accept button after entering the volume scan number, RADS immediately signals the data server program to retrieve and display the new volume scan from disk.

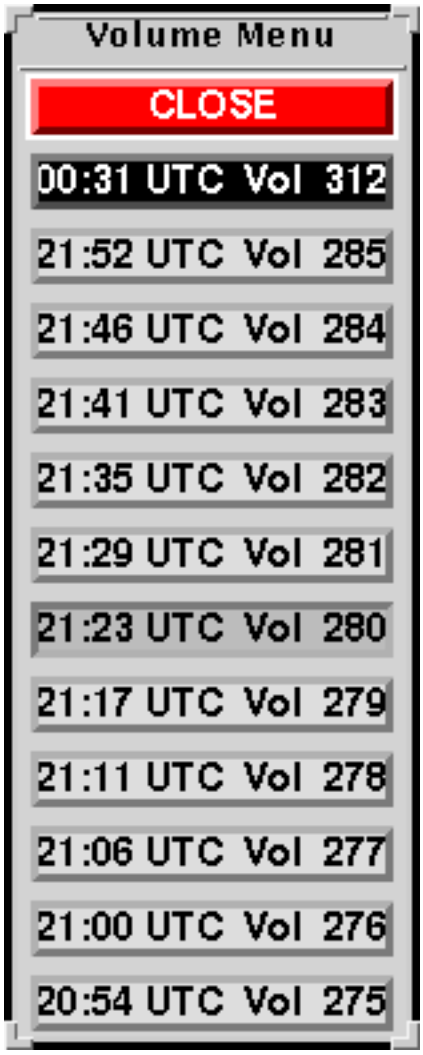

Figure 2.27: The Volume Menu

If you want to change both the current volume scan and the current sweep number before displaying and updating, press ↵ or the Accept button after changing both the volume scan and sweep numbers. This signals the data server program to retrieve and display both the new volume scan and sweep information from disk simultaneously.

2. You can also use the left/right arrows  to the right of the current volume scan entry box. To use them, click once on the left arrow button to decrement the current volume scan by one, or click once on the right arrow button to increment the current volume number by one. Always follow your choice by pressing the Accept button to activate your selection. If you want to change both the current volume scan and sweep number using the arrows, press the accept button after your changes. Both the volume scan and sweep will update.

3. To use the volume scan pop-up menu (Fig. 2.27), click once on the button which displays the time of the volume scan and volume number. A volume scan pop-up menu will appear with available scans in a range near the current volume scan. Click once on the desired scan. The current volume scan is shown as a depressed button. The last available volume scan is shown at the top of the menu in black.

Current Sweep Displayed

The **current sweep** is the radar sweep or tilt currently being displayed. The elevation angle of the radar antenna during this sweep is indicated in degrees next to the sweep number. **There are three ways to change the current sweep number:**

1. By clicking once on the sweep number entry box  , the black square and typing in a new sweep number. If you press ↵ or the Accept button, immediately after entering the sweep number, RADS immediately signals the data server program to fetch and display the new sweep number from disk.

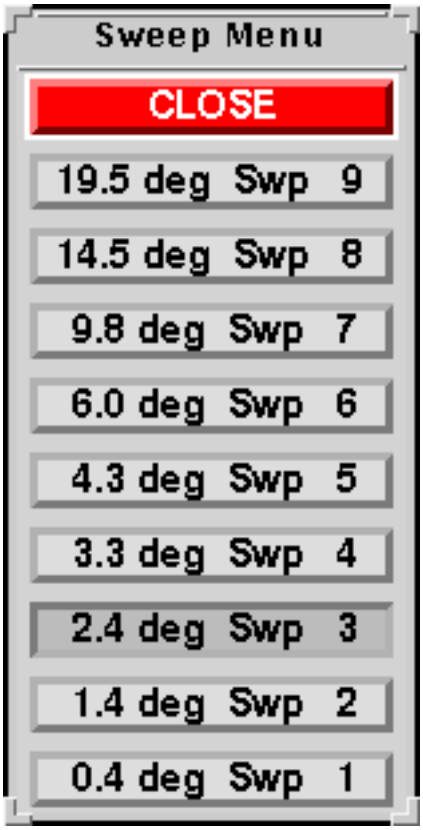

Figure 2.28: The Sweep Menu

If you would also like to change both the current volume scan and sweep number before displaying, press ↵ or the Accept button after changing both the volume scan and sweep numbers. This signals the data server program to fetch and display both the new volume scan and sweep information from disk at the same time.

2. The sweep can also be changed by use of the up/down arrows  to the right of the current sweep entry button. To use them, click once on the  button to decrement the current volume scan by one, or click once on the  button to increment the current volume scan number by one. Follow all changes by pressing Accept to activate your selection.

3. Another way to change the current sweep is by using the sweep pop-up menu (Figure 2.28). Click once on 2.4 deg Swp 3 in the RADS control panel. Then, click once on the desired sweep. This button displays the degrees (angle) of the current tilt and sweep number. Here the button shows that the current sweep (tilt) angle of the radar is 2.4^0, and is designated to be sweep number 3. A current sweep pop-up menu will appear with available sweeps near the current sweep number.

   NOTE: The current volume menu may not show the full range of volume scans in a data set, but rather a selected range of volume scans. The five volume scans before and after the current volume scan will be displayed, if available.

Accept Accept: **Accept New Volume and/or Sweep Numbers Button**

When the Accept button is pressed, RADS takes the volume and sweep numbers selected or entered by the user and changes them to the current, active values by activating the RADS data server. All base data images, products, and associated information are automatically updated. **Note that until you press ↵ in the sweep number entry box or the volume scan entry box, OR you press the Accept button, OR you select from the volume or sweep menus, the images will NOT be updated to the new volume scan or sweep number.** RADS waits to access the new data until prompted in one of those three ways.